Results: Describing the scale and composition of calls for police service: a replication and extension using open data

Samuel Langton, Stijn Ruiter, Tim Verlaan

THIS DOC HAS BEEN CREATED PURELY SUMMARIZE THE RESULTS (WITH NO TEXT) IN ONE PLACE. ALL RESULTS PRESENTED HERE ARE GENERATED IN THE R SCRPTS.

1 Main results

Table 1: Breakdown of frequency counts and time spent on each demand type. Total deployed time is the sum of the time on scene and response time.

Demand type	Count	Count (%)	Time on scene (%)	Total deployed time (%)
community	14466	5.59	5.06	5.15
crime	114800	44.36	51.40	50.55
health	19873	7.68	7.10	7.19
proactive	15663	6.05	3.89	4.04
quality of life	54702	21.14	14.66	15.54
traffic	32147	12.42	15.63	15.27
unclassified	7135	2.76	2.25	2.26

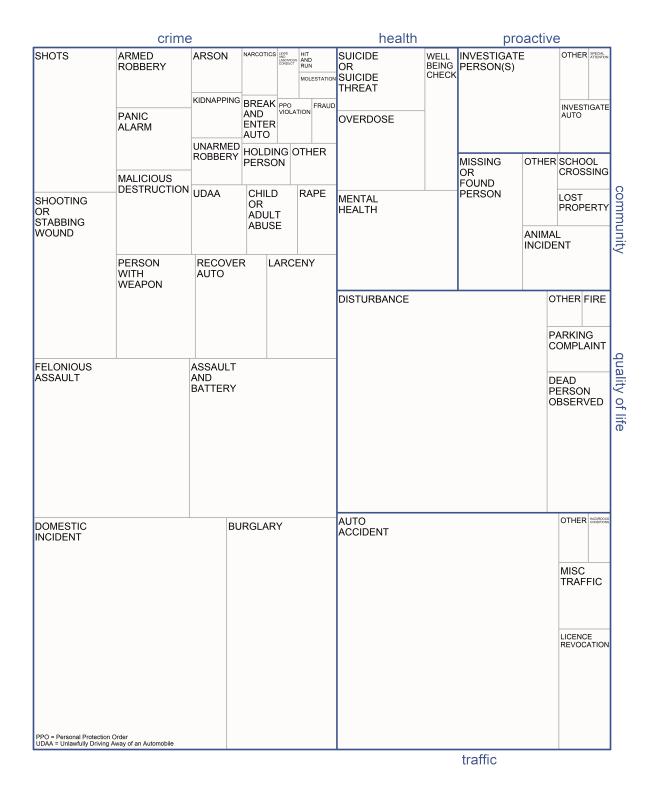


Figure 1: Proportional breakdown of police time consumed over the year, defined as time spent on the scene, for each call category.

Table 2: Descriptive statistics of minutes spent on scene for each demand type classification.

Demand type	Mean	Median	Min.	Max.	SD
community	40.0	24.6	0.1	847.7	48.0
crime	51.0	30.4	0.1	987.0	64.1
health	40.9	29.1	0.1	897.4	45.2
proactive	28.4	16.5	0.1	907.9	47.4
quality of life	30.5	19.7	0.1	885.6	41.1
traffic	55.0	30.0	0.1	901.1	65.0

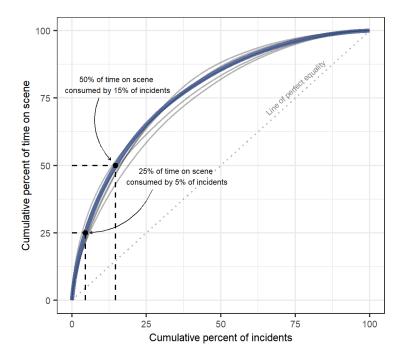


Figure 2: Lorenz curve for time spent on scene across all calls (in blue). Lorenz curves in grey for each of the six demand classifications.

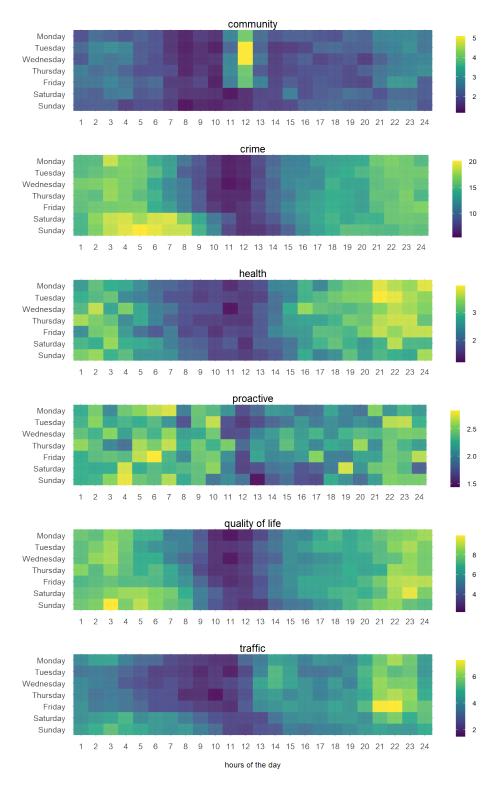


Figure 3: Mean call counts by day and hour, for each demand type.

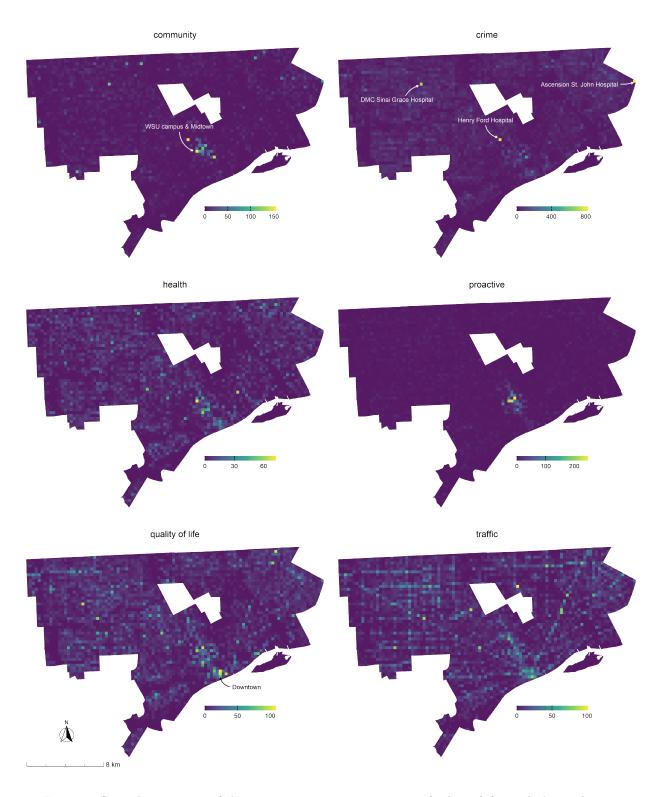


Figure 4: Spatial patterning of the aggregate time spent on scene (in hours) for each demand type.

2 Appendix

2.1 Raw count maps



Figure 5: Spatial patterning of the raw call counts for each demand classification

2.2 Time on scene distributions

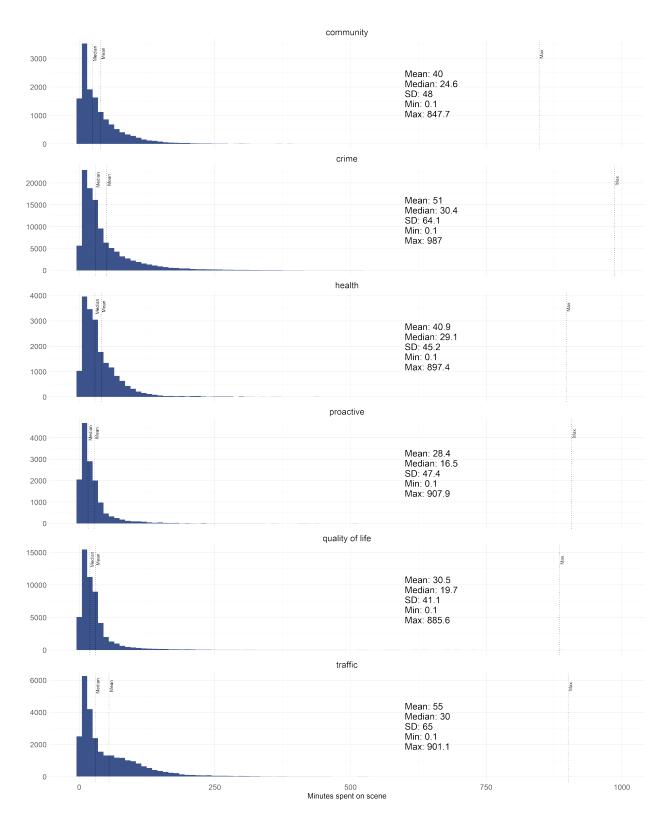


Figure 6: Distribution and descriptive statistics of time spent on scene by demand classification at the call level.

3 References